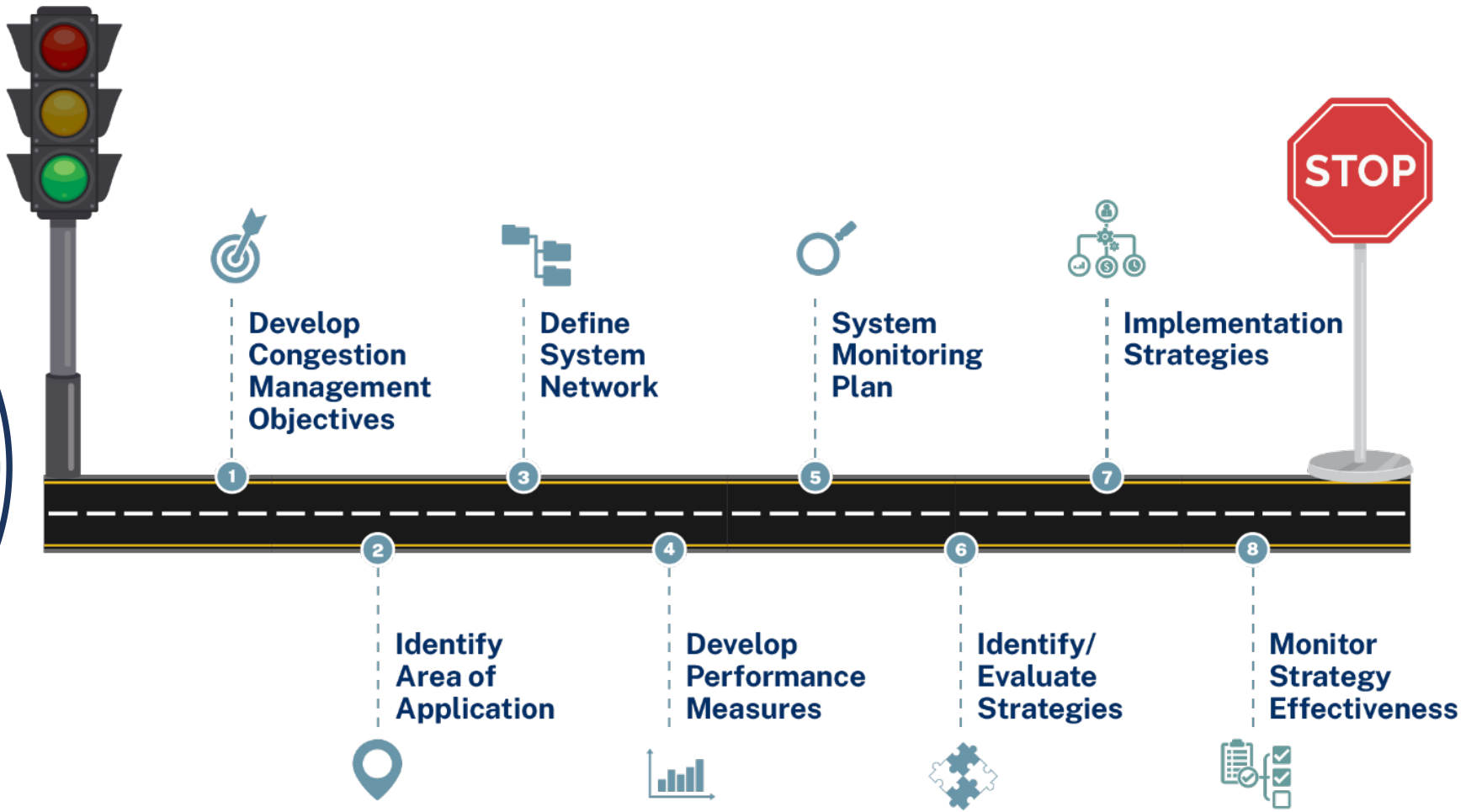


# CONGESTION MANAGEMENT PLAN



CRTPA BOARD MEETING  
March 18, 2024

**STEPS IN THE  
CONGESTION  
MANAGEMENT  
PLAN  
PROCESS**





# CONGESTION MANAGEMENT PLAN COORDINATION

- CMP Technical Task Force – members comprised of CRTPA's Technical Advisory Committee
  - June 6, 2022
  - June 8, 2023
- Stakeholder Interviews
  - Gadsden County Public Works Department
  - Jefferson County Public Works Department
  - Leon County Public Works Department
  - The Regional Traffic Management Center (RTMC)
  - City of Tallahassee Underground Utilities and Public Infrastructure
  - Wakulla County Public Works Department





## Goal #1: Safety

### Objectives

1. Reduce the Number of Automobile Crashes
2. Reduce the Number of Non-Motorized Crashes
3. Reduce the Number of Fatalities

### Performance Measures

1. Number of Fatal and Serious Injury Crashes
2. Serious Injury Rate
3. Fatality Rate

## Goal #2: Incorporate Multimodal Options

### Objectives

1. Reduce Nonrecurring Congestion
2. Achieve Adopted Level of Service (LOS)
3. Increase percentage of Work Trips made by Transit, Bicycling, or Walking

### Performance Measures

1. Planning Time Index (PTI)
2. Facilities Meeting LOS
3. Percent of Work Trips made by Transit, Bicycling, or Walking



## Goal #3: Increase Network Connectivity

### Objectives

1. Promote Multimodal Connectivity through Facility Enhancements

### Performance Measures

1. Percent of CMP Network with Bicycle and Pedestrian Facilities

## Goal #4: Increase Access to Key Destinations

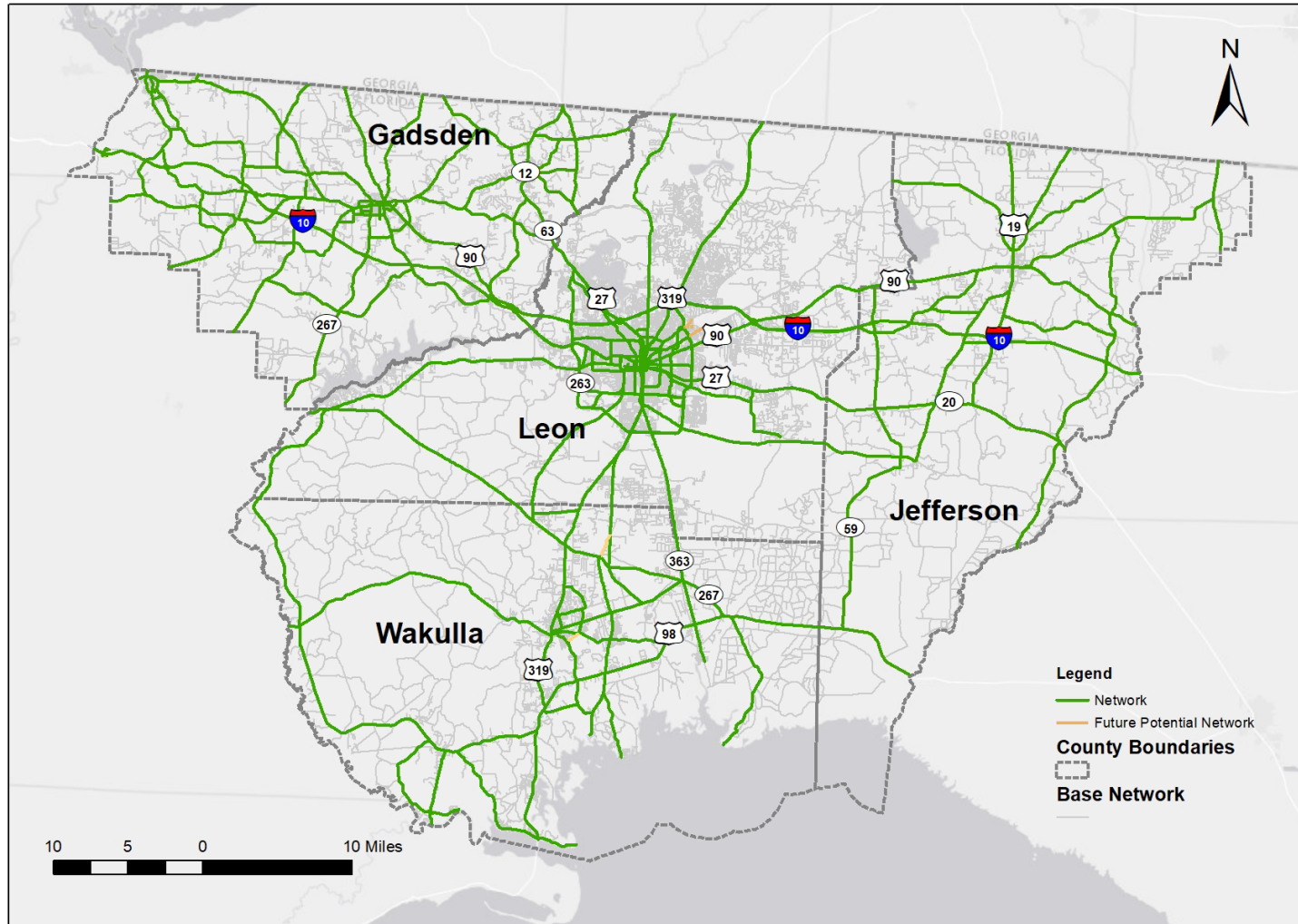
### Objectives

1. Improve access to residential/employment clusters
2. Utilize Context Sensitive Solutions/Complete Street Strategies

### Performance Measures

1. Percent of Population within ½ Mile of Transit
2. Percent of Population withing ½ Mile of Bike/Pedestrian Facility

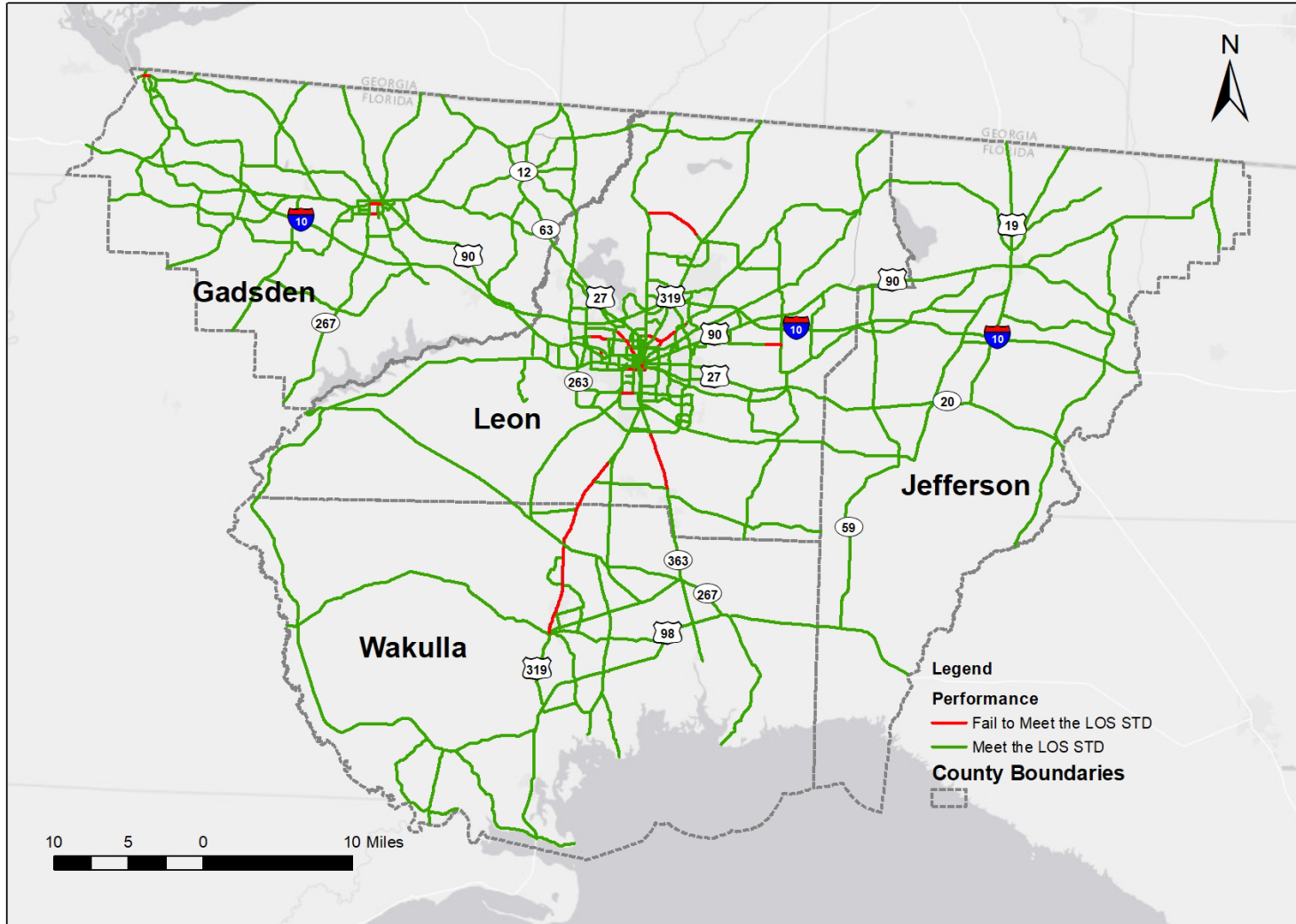
# CONGESTION MANAGEMENT PLAN NETWORK



Determining which roads will be analyzed is foundational in areawide project needs identification. Roadways containing the following functional classifications were analyzed in the CMP:

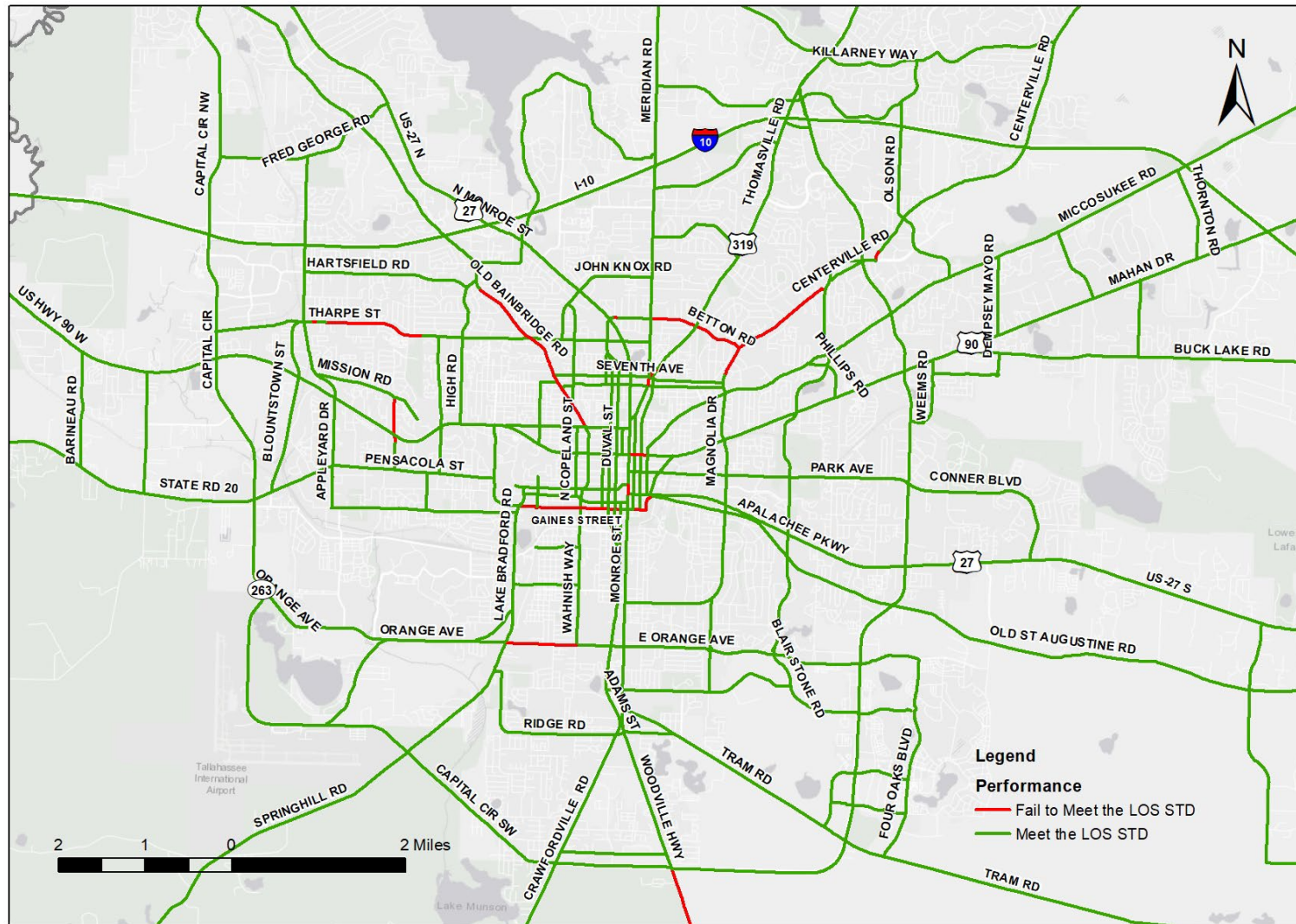
- Urban Principal Arterials
- Urban Minor Arterial
- Urban Major Collectors
- Rural Principal Arterial
- Rural Minor Arterial
- Rural Major Collectors

# RECURRING CONGESTION – LEVEL OF SERVICE – CRTPA AREA



Roadway volume was extracted for the CMP network in the format of Average Annual Daily Traffic (AADTs). The AADTs were first analyzed using FDOT’s Generalized Service Volume Tables to determine the LOS letter grade based on area types.

# RECURRING CONGESTION – LEVEL OF SERVICE – URBAN INSET





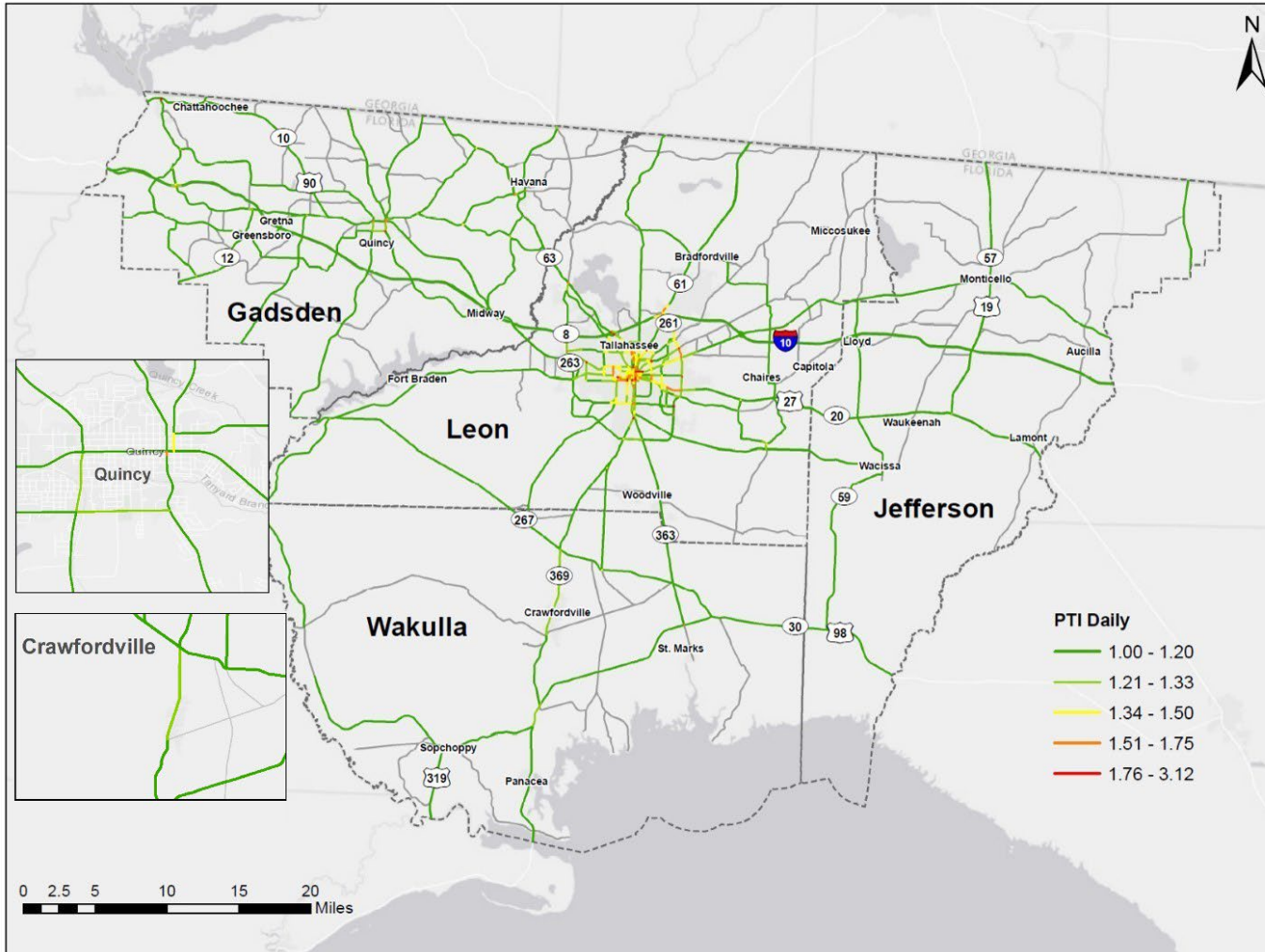
## LEVEL OF SERVICE – FAILED SEGMENTS USING 2020 GENERALIZED SERVICE VOLUME TABLES (TOP TEN BY VOLUME)

Rank	Location	County	Urbanized	AADT	LOS	Performance
1	<b>East Tennessee Street</b> between Monroe Street and N. Meridian Street	Leon	Yes	37,000	F	Failed Standard
2	<b>Monroe Street</b> between Apalachee Parkway and E. Jefferson Street	Leon	Yes	34,500	E	Failed Standard
3	<b>Centerville Road</b> between Welaunee Boulevard and Glenncrest Lane	Leon	Yes	21,500	F	Failed Standard
4	<b>Orange Avenue</b> between Springhill Road and Wahnish Way	Leon	Yes	20,400	F	Failed Standard
5	<b>Bannerman Road</b> between Preservation Road and McBride Point	Leon	No	20,200	F	Failed Standard
6	<b>East Gaines Street</b> between Calhoun Street and East Lafayette Street	Leon	Yes	19,800	F	Failed Standard
7	<b>Thomasville Road</b> between 6th Avenue and N. Gadsden Street	Leon	Yes	19,000	F	Failed Standard
8	<b>Betton Road</b> between Thomasville Road and Centerville Road	Leon	Yes	18,800	E	Failed Standard
9	<b>Bradford Road</b> between N. Meridian and Thomasville Road	Leon	Yes	17,000	E	Failed Standard
10	<b>Crawfordville Highway</b> between MLK Road and Wakulla Springs Road	Wakulla	No	15,000	F	Failed Standard

## LEVEL OF SERVICE – USING 2023 GENERALIZED SERVICE VOLUME TABLES (TOP TEN BY VOLUME)

Rank	Location	County	AADT	Context Classification	LOS	Performance
1	<b>Bannerman Road</b> between Preservation Road and McBride Point	Leon	20,200	C3R	D	Failed Standard
2	<b>Crawfordville Highway</b> between Shadeville Road and Ivan Church Road	Wakulla	17,100	C3C	D	Failed Standard
3	<b>Crawfordville Highway</b> between Ivan Church Road and Bloxham Cutoff Road	Wakulla	15,700	C2	E	Failed Standard
4	<b>Woodville Highway</b> between Oak Ridge Road and Capital Circle	Leon	15,000	C2	E	Failed Standard
5	<b>Crawfordville Highway</b> between Bloxham Cutoff Road and Pixie Circle	Wakulla	15,000	C2	E	Failed Standard
6	<b>Crawfordville Highway</b> between Pixie Circle and County Limit	Wakulla	15,000	C1	E	Failed Standard
7	<b>Crawfordville Highway</b> between County Limit and North of Glover Road	Leon	13,900	C2	D	Failed Standard
8	<b>Crawfordville Highway</b> between North of Glover Road and Wakulla Springs Rd.	Leon	13,900	C1	D	Failed Standard
9	<b>Buck Lake Road</b> between Buck Lake Trail and Chairs Crossing Road	Leon	11,500	C2	D	Failed Standard
10	<b>Centerville Road</b> between Bradfordville Road and SR 59	Leon	10,200	C2	D	Failed Standard

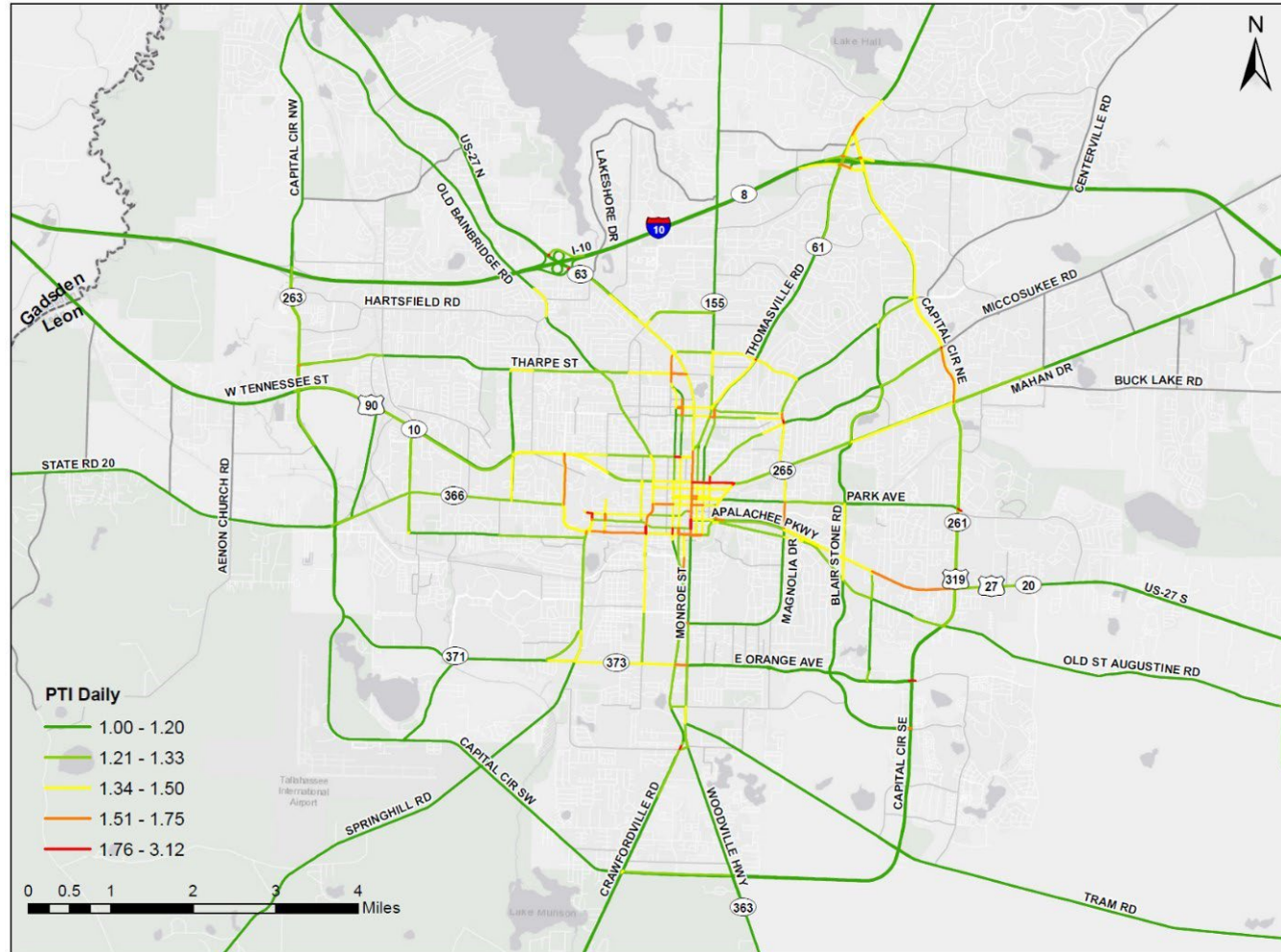
# NONRECURRING CONGESTION – PLANNING TIME INDEX (DAILY) – CRTPA AREA



Consistent travel times make it easier to conduct trip planning and increase the likelihood of on-time arrival. Nonrecurring congestion has a ripple effect that decreases the predictability of travel times. The Planning Time Index (PTI) represents the additional travel time that a traveler should budget for to ensure on-time arrival 95 percent of the time



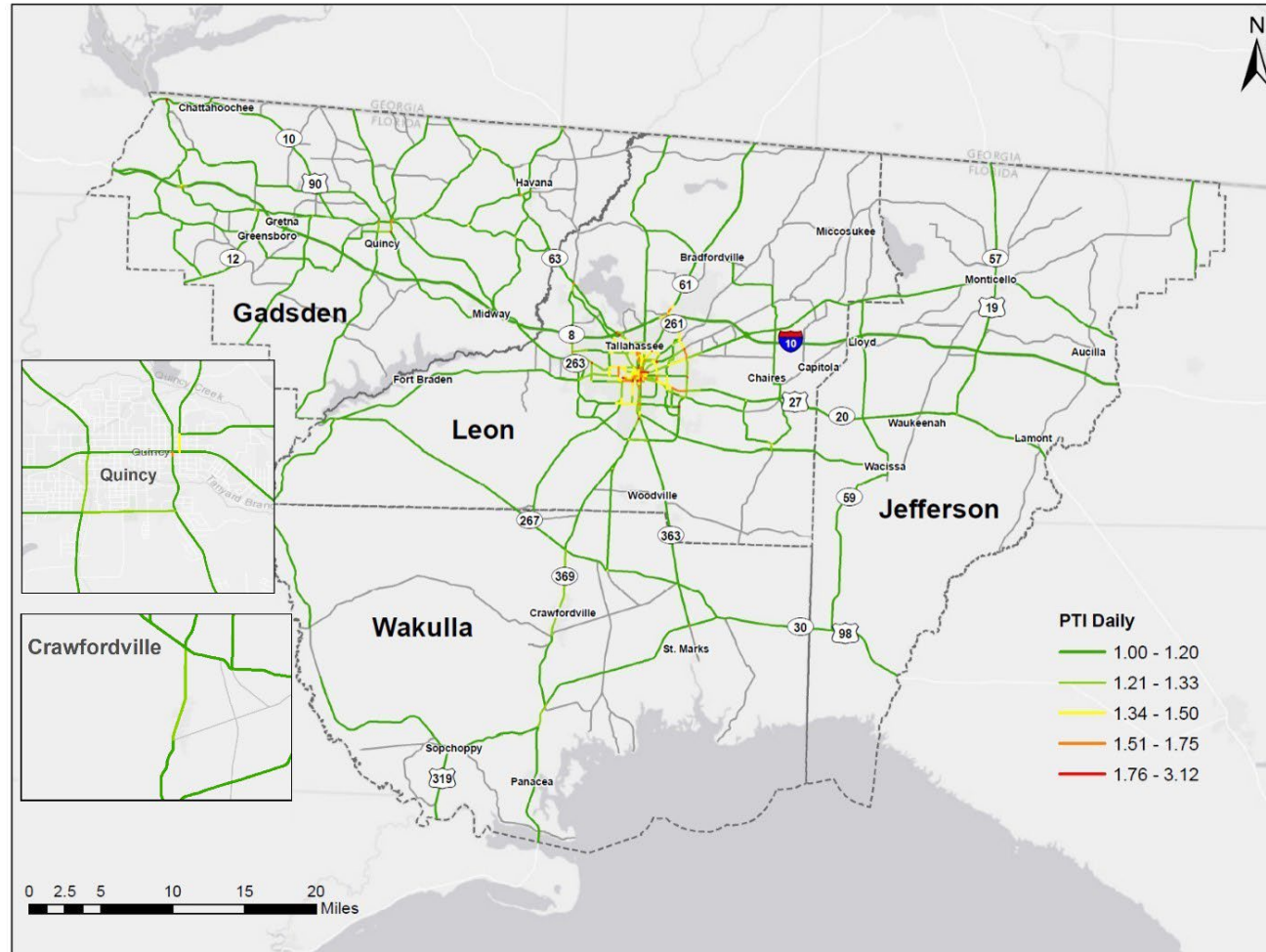
# NONRECURRING CONGESTION – PLANNING TIME INDEX (DAILY) – URBAN INSET



# DAILY PTI – TOP 10 LOCATIONS

Rank	County	Location	Daily PTI	Speed (MPH)
1	Leon	<b>Northbound Varsity Drive</b> intersecting with West Pensacola Street	3.12	7.3
2	Leon	<b>Westbound Orange Avenue</b> intersecting with Capital Circle Southeast	2.04	18.2
3	Leon	<b>Southbound Appleyard Drive</b> intersecting with West Tennessee Street	2.04	17.0
4	Leon	<b>Westbound Miccosukee Road</b> intersecting with Capital Circle Northeast	2.01	15.7
5	Leon	<b>Southbound Railroad Avenue</b> between West Madison Street and West Gaines Street	2.00	8.5
6	Leon	<b>Southbound South Monroe Street</b> between East Madison Street and Apalachee Parkway	1.97	13.8
7	Leon	<b>Southbound Franklin Boulevard</b> intersecting with East Tennessee Street	1.96	15.9
8	Leon	<b>Eastbound West Brevard Street</b> between North Bronough Street and North Duval Street	1.90	10.8
9	Gadsden	<b>Westbound Martin Luther King Jr. Boulevard</b> intersecting with South Adams Street	1.90	10.1
10	Leon	<b>Southbound South Bronough Street</b> between West Gaines Street and West Madison Street	1.88	14.5

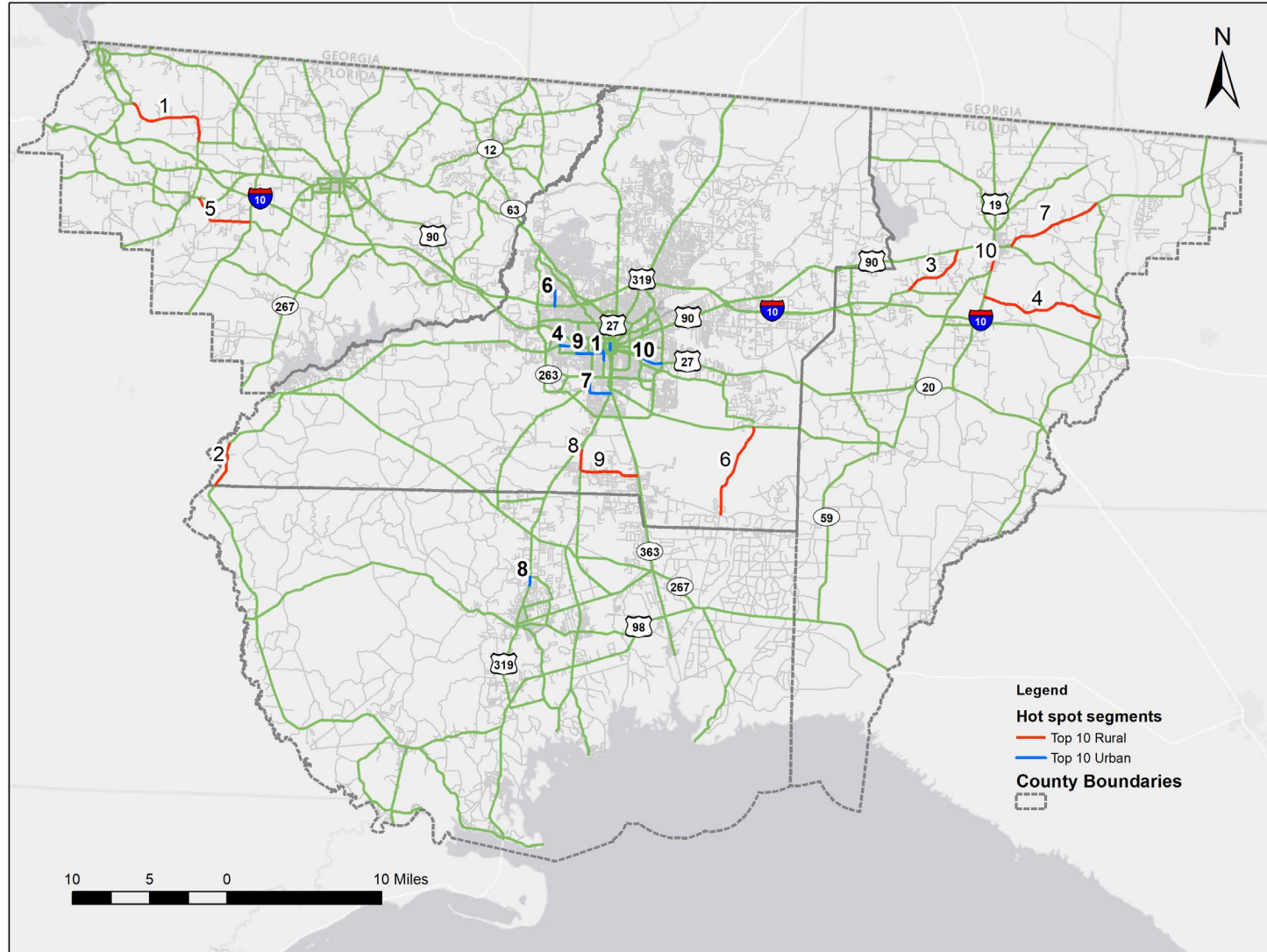
# NONRECURRING CONGESTION – PLANNING TIME INDEX (PEAK HOUR) – CRTPA AREA



# PEAK HOUR PTI – TOP 10 LOCATIONS

Rank	County	Location	PTI	Speed (MPH)
1	Leon	Northbound South Monroe Street between E Madison Street and E Gaines Street	2.92	8.7
2	Leon	Northbound Varsity Drive East intersecting with W Pensacola Street	2.74	5.5
3	Leon	Southbound Appleyard Drive intersecting with W Tennessee Street	2.51	14.2
4	Leon	Westbound Miccosukee Road intersecting with Capital Circle Northeast	2.25	12.5
5	Leon	Southbound Railroad Avenue between W Madison Street and W Gaines Street	2.24	5.1
6	Leon	Northbound South Monroe Street between Jefferson Street and Apalachee Parkway	2.22	9.5
7	Leon	Eastbound West Gaines Street between South Monroe Street and S Duval Street	2.22	8.1
8	Leon	Eastbound Betton Road intersecting with Thomasville Road	2.18	13.0
9	Leon	Westbound Orange Avenue East intersecting with Capital Circle Southeast	2.17	13.9
10	Leon	Northbound South Monroe Street between W Tennessee Street and E Jefferson Street	2.12	9.1

# SAFETY ANALYSIS – HOT SPOT SEGMENTS - CRTPA AREA

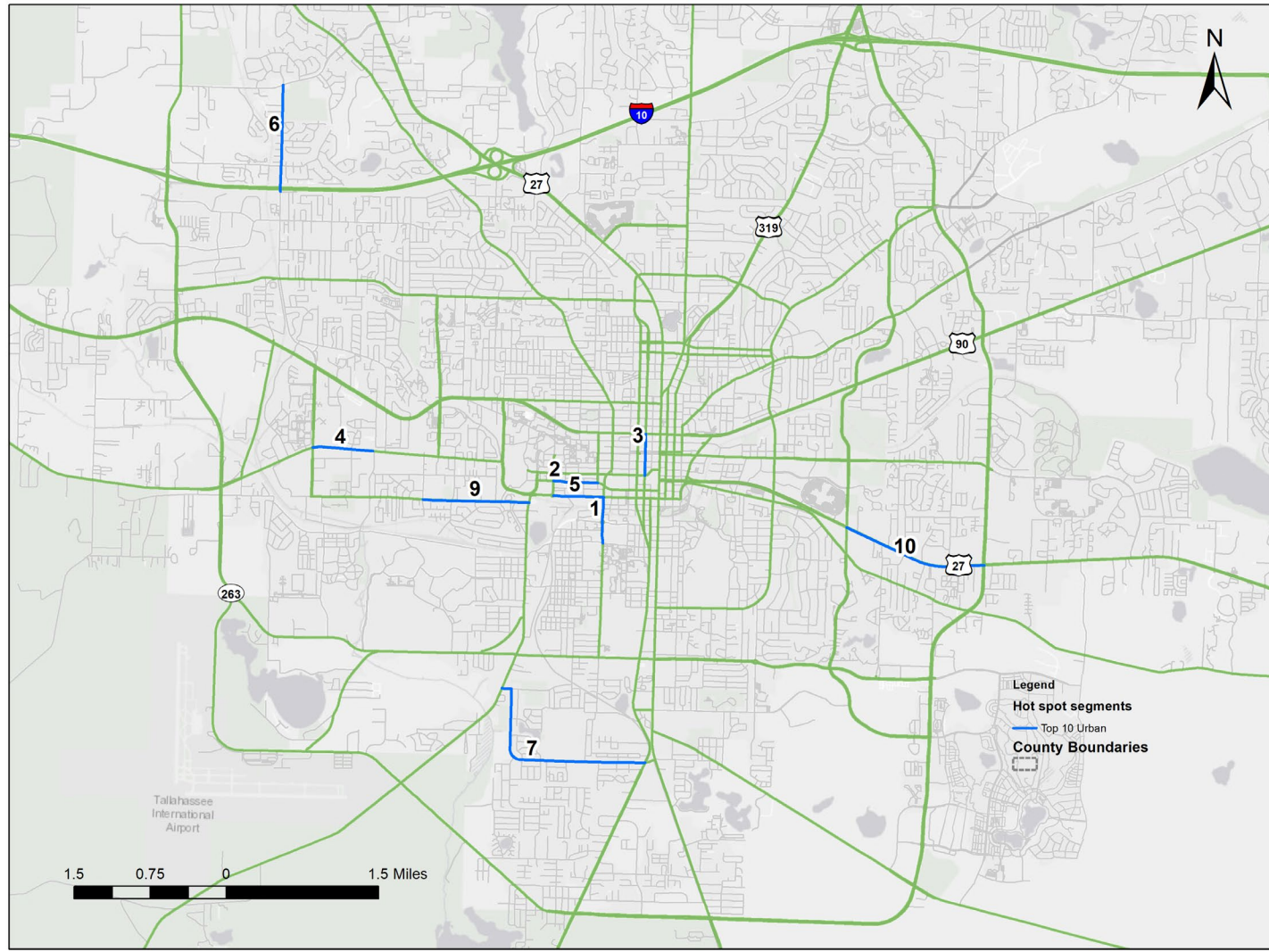


To determine safety hotspots, separate crash analyses were conducted at both the segment level and intersection level. The roadways in the 4 counties were screened for safety issues with an emphasis on fatalities and serious injuries.

To develop the safety plan, sites with at least 3 fatal or serious injury crashes were selected.



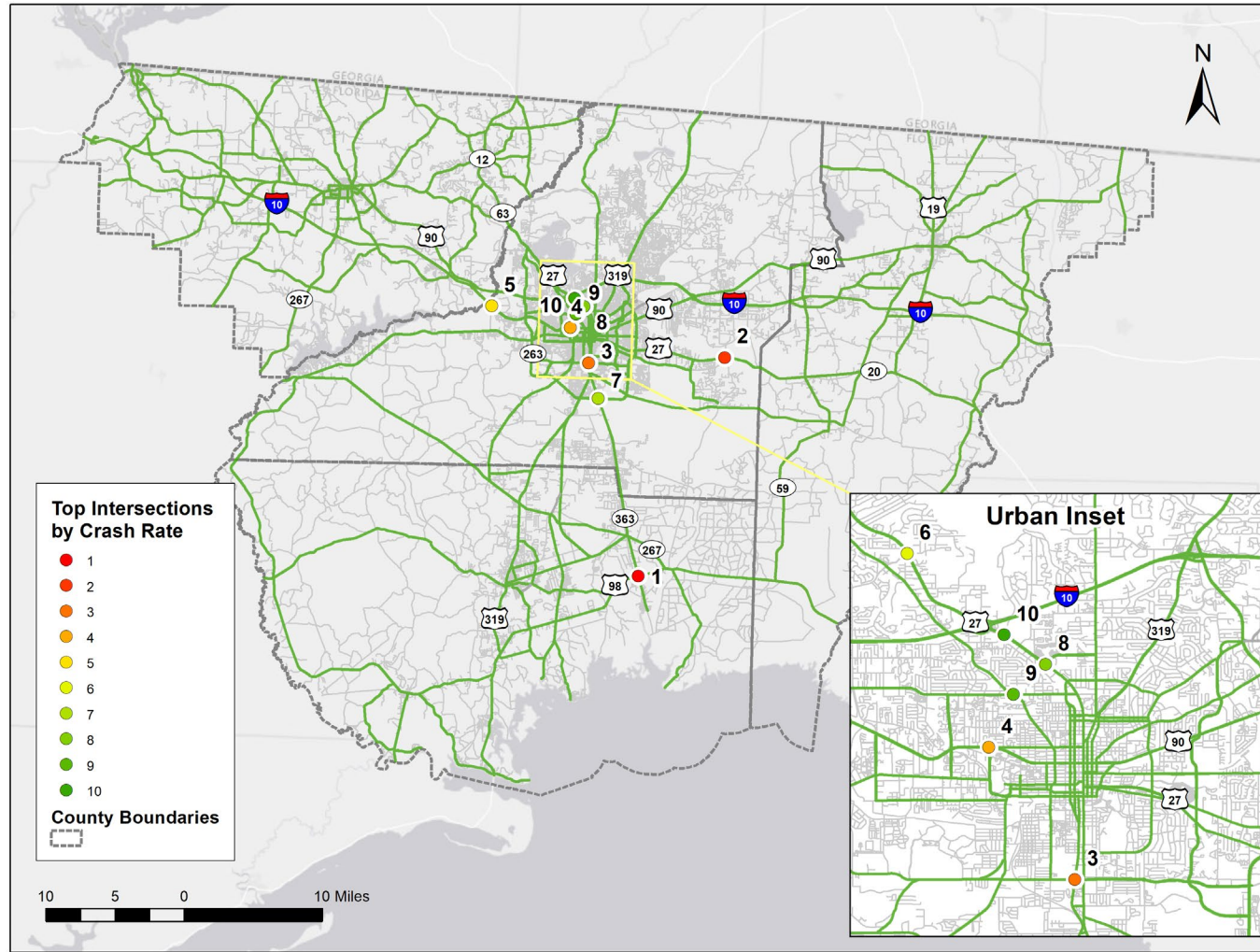
# SAFETY ANALYSIS – HOT SPOT SEGMENTS – URBAN INSET



# SAFETY ANALYSIS – SEGMENT HOT SPOTS (TOP 10)

Rank	Location	County	AADT	Fatal Crashes	Serious Injury Crashes	Crash Rate
1	Railroad Avenue between West Gaines Street and Robert and Trudie Perkins Way	Leon	6,300	0	3	57.59
2	St. Augustine Street between S Woodward Avenue and South Copeland Street	Leon	7,400	0	3	50.66
3	Hardaway Highway between Lincoln Drive (CR 269A) and Cochran Road	Gadsden	550	2	1	47.40
4	Duval Street between West Pensacola Street and West Park Avenue	Leon	8,500	0	3	47.18
5	West Pensacola Street between Appleyard Drive and Mabry Street	Leon	18,800	2	5	34.40
6	Smith Creek Road between Stoutamire Landing Road and Leon County Line	Leon	600	1	2	33.04
7	Old Lloyd Road between US 90 and Rabon Road	Jefferson	1,200	0	3	30.39
8	Drifton-Aucilla Road between South Jefferson and Salt Road	Jefferson	700	0	3	28.84
9	Providence Road between Selman Street and Hosford Highway	Gadsden	1,500	1	2	25.80
10	Old Plank Road between Tram Road and Natural Bridge Road	Leon	1,400	2	2	24.53

# SAFETY ANALYSIS – INTERSECTION CRASH ANALYSIS – CRTPA AREA



Fatal and serious injury crashes occurring within 350 ft of an intersection were classified as intersection crashes. The crash rates for the intersections were calculated using this equation:

$$R = \frac{1,000,000 \times C}{365 \times N \times V}$$

Where:

- R = Crash rate for the intersection expressed as accidents per million entering vehicles (MEV).
- C = Total number of intersection crashes in the study period.
- N = Number of years of data.
- V = Traffic volumes entering the intersection daily. [10](#)

# SAFETY ANALYSIS – INTERSECTION HOT SPOTS (TOP 10)

Rank	Location	County	Fatal Crashes	Serious Injury Crashes	Entering Traffic Volume	Crash Rate
1	US 98 and Woodville Highway	Wakulla	2	1	4,875	0.337
2	US 90 and Greensboro Highway (SR 12)	Gadsden	1	2	11,250	0.146
3	Apalachee Parkway and W. Kelly Road	Leon	1	2	12,500	0.132
4	Orange Avenue and S. Adams Street	Leon	4	3	42,400	0.090
5	I-10 and Mahan Drive Interchange	Leon	2	2	26,050	0.084
6	West Tennessee Street and Stadium Drive	Leon	0	7	45,800	0.084
7	West Brevard Street and Old Bainbridge Road	Leon	0	3	21,700	0.076
8	West Tennessee Street and Geddie Road	Leon	0	3	21,900	0.075
9	North Monroe Street and Fred George Road	Leon	2	2	29,350	0.075
10	North Monroe Street and Lakeshore Drive	Leon	0	3	23,500	0.070

# STRATEGIES/COUNTERMEASURES – INTERSECTIONS

Rank	Location	County	Fatal Crashes	Serious Injury Crashes
1	US 98 and Woodville Highway	Wakulla	2	1
2	US 90 and Greensboro Highway (SR 12)	Gadsden	1	2
3	Apalachee Parkway and W. Kelly Road	Leon	1	2
4	Orange Avenue and S. Adams Street	Leon	4	3
5	I-10 and Mahan Drive Interchange	Leon	2	2
6	West Tennessee Street and Stadium Drive	Leon	0	7
7	West Brevard Street and Old Bainbridge Road	Leon	0	3
8	West Tennessee Street and Geddie Road	Leon	0	3
9	North Monroe Street and Fred George Road	Leon	2	2
10	North Monroe Street and Lakeshore Drive	Leon	0	3

A component of the CMP is to develop strategies to address system deficiencies.

Field reviews were conducted for each location and engineering judgement utilized to develop potential countermeasures for intersections, rural and urban segments.

Further analysis is needed to identify solutions that are likely to resolve documented crashes.

# STRATEGIES/COUNTERMEASURES – INTERSECTIONS

## West Tharpe Street and Old Bainbridge Road



### Crash Statistics

Year	All Crashes	Left turn	Right angle	Head on
2017	1	1	0	0
2018	0	0	0	0
2019	1	0	0	1
2020	0	0	0	0
2021	1	0	1	0
<b>Total</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>

### Potential Countermeasures

1. Signal Phasing
  - a. Change NB and SB left turn phases to “Protected Only.”
2. Pavement Markings
  - a. Restripe dotted lane line extensions for left turns through the intersection.
3. Pedestrian Detection
  - a. Convert pedestrian detectors to “Countdown” and/or “Audible” detection signals.
  - b. Consider exclusive pedestrian phase (i.e., all traffic approaches stop when pedestrian detectors are activated).

# STRATEGIES/COUNTERMEASURES – RURAL SEGMENTS

Rank	Location	County	Fatal Crashes	Serious Injury Crashes	AADT
1	Hardaway Highway	Gadsden	2	1	550
2	Providence Road	Gadsden	1	2	1,500
3	Smith Creek Road	Leon	1	2	600
4	Crawfordville Highway	Wakulla	1	2	15,700
5	Wakulla Springs Road	Leon	0	4	7,700
6	Oak Ridge Road	Leon	3	2	3,700
7	Old Plank Road	Leon	2	2	1,400
8	Old Lloyd Road	Jefferson	0	3	1,200
9	Aucilla Highway	Jefferson	0	3	700
10	Ashville Highway	Jefferson	0	5	1,800

The ten (10) rural segments with the highest crash rates for the four-county area are listed and were analyzed for potential countermeasures which typically involve **high-speed, horizontal curves, and off-road crashes.**

As a result, common potential countermeasures included actions such as:

- Patching shoulder ruts
- Horizontal alignment/speed advisory signage, and
- Installation of longitudinal rumble strips or,
- Profiled pavement markers on the centerline and outside lane line.

# STRATEGIES/COUNTERMEASURES – RURAL SEGMENTS

## Ashville Highway between St. Margaret’s Church Road and Salt Road



### Potential Countermeasures

1. Pavement Condition
  - a. Fix rutting on shoulder as needed (Shoulder drop-offs).
2. Pavement Markings
  - a. Install rumble strips or raised pavement markings on centerline and edge of travel lane line.

### Crash Statistics

Year	All Crashes	Off Road	Head On
2017	2	2	0
2018	0	0	0
2019	1	1	0
2020	0	0	0
2021	2	1	1
<b>Total</b>	<b>5</b>	<b>4</b>	<b>1</b>

### Rutting Picture



### Additional Safety Notes:

- Overall pavement condition has degraded (poor to satisfactory).



# STRATEGIES/COUNTERMEASURES – URBAN SEGMENTS

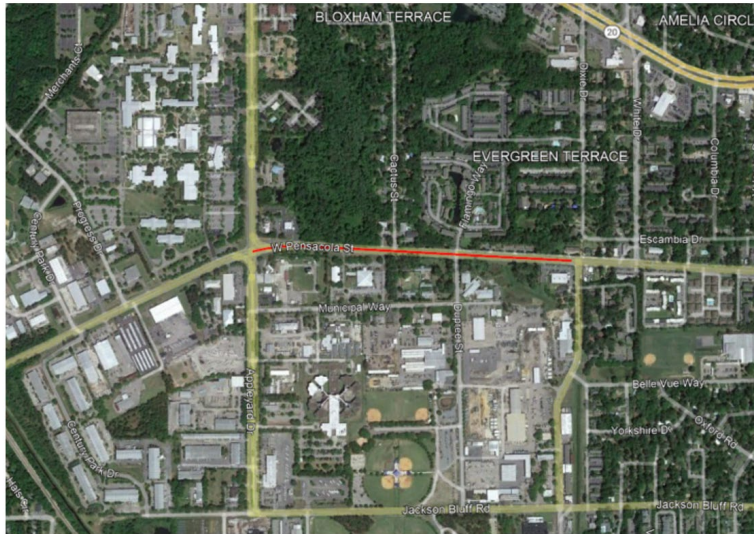
Rank	Location	County	Fatal Crashes	Serious Injury Crashes	AADT
1	Mission Road	Leon	2	1	7,600
2	Pensacola Street	Leon	2	2	18,800
3	Jackson Bluff Road	Leon	0	3	9,600
4	St. Augustine Street	Leon	0	3	7,400
5	Gaines Street	Leon	0	4	20,400
6	Railroad Avenue	Leon	0	3	6,300
7	Duval Street	Leon	0	3	8,500
8	Ridge Road	Leon	1	4	6,600
9	Apalachee Parkway	Leon	0	13	31,000
10	Jefferson Street	Jefferson	0	3	8,000

The ten (10) urban segments with the highest crash rates in the four-county area are listed in the Table. The urban segments analyzed typically involved **crashes related to bicycle and pedestrian conflicts as well as rear-end, sideswipe, and left and right-turn angle crashes.**

As a result, common potential countermeasures included improvements such as:

- Enhanced pedestrian facilities (signage, detectors, crosswalks, etc.),
- Median installation, and sight distance improvements.

## West Pensacola Street between Appleyard Drive and Mabry Street



### Crash Statistics

Year	All Crashes	Pedestrian	Left Turn	Rear End
2017	0	0	0	0
2018	3	2	1	0
2019	2	2	0	0
2020	1	0	0	1
2021	1	1	0	0
<b>Total</b>	<b>7</b>	<b>5</b>	<b>1</b>	<b>1</b>

### Potential Countermeasures

1. Segment Signage
  - a. Provide advanced “high pedestrian area” signage (Many pedestrians are present).
2. Segment Congestion
  - a. Install median along West Pensacola Street to reduce vehicle-pedestrian conflicts.
  - b. Install speed feedback signs on West Pensacola Street.
3. Pensacola Street at Cactus Street
  - a. Relocate black fencing on NE corner of intersection to eliminate sight distance problem.
4. Pedestrian Detection
  - a. Convert pedestrian detectors along the segment to “Audible” detection signals.
  - b. Provide Rectangular Rapid Flashing Beacons (RRFBs) at intended pedestrian crossing.

## Recurring Congestion - LOS

County	Location	Potential Project/Strategy
Leon	East Gaines Street between Calhoun Street and South Meridian Street	Heavy bike/pedestrian corridor restricts vehicular improvements
Leon	East Tennessee Street between Monroe Street and Meridian Street	Study to evaluate complete street improvements
Leon	Thomasville Road between 6th Avenue and N. Gadsden Street	Improvements currently in design phase with FDOT/Blueprint
Leon	Orange Avenue between Springhill Road and Wahnish Way	Improvements currently in design phase with FDOT/Blueprint
Leon	North Duval Street between 4th Avenue and 8th Avenue	Study to evaluate complete street improvements
Leon	Bannerman Road between Preservation Road and McBride Point	Improvements currently in design phase with Leon County/Blueprint
Leon	West Tharpe Street between Ocala Road and West Burns Drive	Blueprint preparing PD&E Study to address operational improvements
Wakulla	Crawfordville Road between Ivan Church and Wakulla Springs Road	Widening programmed in LRTP

Based on the congestion and safety analysis, a list of potential projects and strategies has been developed including:

- Recurring Congestion
- Non-Recurring Congestion
- Safety: Intersections
- Safety: Urban Segments
- Safety: Rural Segments

## Nonrecurring Congestion - PTI

County	Location	Project/Strategy
Leon	Northbound South Monroe Street between East Madison and East Gaines	Evaluate accessibility issues and queue length problems; signal timing optimization; integration of traffic information systems
Leon	Southbound Appleyard Drive intersecting with West Tennessee Street	Evaluate accessibility issues and queue length problems; signal timing optimization; integration of traffic information systems
Leon	Westbound Miccosukee Road at Capital Circle Southeast	Evaluate accessibility issues and queue length problems; signal timing optimization; integration of traffic information systems
Leon	Southbound Railroad Avenue between East Madison Street and West Gaines	Evaluate accessibility issues and queue length problems; signal timing optimization; integration of traffic information systems
Leon	Northbound Monroe Street between Jefferson Street and Apalachee Parkway	Evaluate accessibility issues and queue length problems; signal timing optimization; integration of traffic information systems

# CMP ACTIONS & RECOMMENDATIONS

As part of the Regional Mobility Plan (RMP) update, consider the roadway segments identified in both recurring & nonrecurring congestion for further evaluation and programming.

1

It is recommended that project specific studies be completed for the thirty (30) safety location (intersections, rural and urban segments) and programmed accordingly.

2

The CRTPA should monitor the effectiveness, in concert with local partners, the strategies and projects implemented in the CMP.

3

The CRTPA should periodically reevaluate the CMP Performance Measures associated with the four goals: Safety, Multimodal, Connectivity and Access

4

CMP ADOPTION MARCH 2024



# QUESTIONS/DISCUSSION

